I. AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

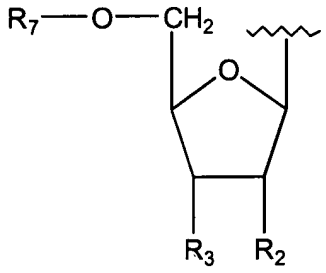
Claims 1 – 55. (Canceled).

56. (Currently Amended) A method for inhibiting the proliferation of a hyperproliferative neoplastic cell that endogenously overexpresses thymidylate synthase, comprising contacting the cell with a compound of claim 62 ~~or a 5'-monophosphate metabolite thereof formed after administration to a subject~~.

57. (Currently Amended) A method for treating a pathology characterized by hyperproliferative neoplastic cells that endogenously ~~overexpresses~~ overexpress thymidylate synthase in a subject comprising administering to the subject a compound of claim 62 ~~or a 5'-monophosphate metabolite thereof formed after administration to a subject~~.

58. (Canceled).

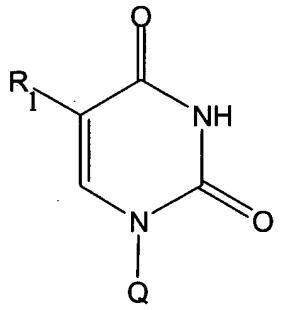
59. (Previously Presented) The method of claim 56 or 57, wherein Q has the formula:



60. (Previously Presented) The method of claim 56 or 57, wherein R_1 is a halogen.

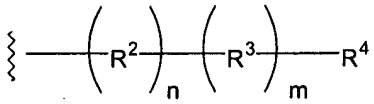
61. (Previously Presented) The method of claim 56 or 57, wherein R_1 is of the formula $(-CH=CH)_n-R_4$, wherein n is an integer from 1 to 10, and R_4 is selected from the group consisting of H; hydroxyl; a halogen; -NHCHO; -OCN; -SCN; $-N_3$; $-NH_2$; -NHOH; - $NHNH_2$ and a C_2 to C_4 carbon-containing substituent selected from the group consisting of alkyl, alkenyl, alkynyl, -O-alkyl, -O-aryl, O-heteroaryl, -S-alkyl, -S-aryl, -S-heteroaryl, -NH-alkyl, $-N(alkyl)_2$ and NHO-alkyl.

62. (Currently Amended) A compound of the formula:



wherein:

R^1 is of the formula:

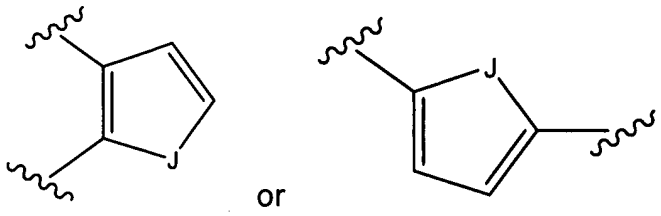


wherein R^2 is one of:

an unsaturated C_2 to C_4 hydrocarbyl group;

or

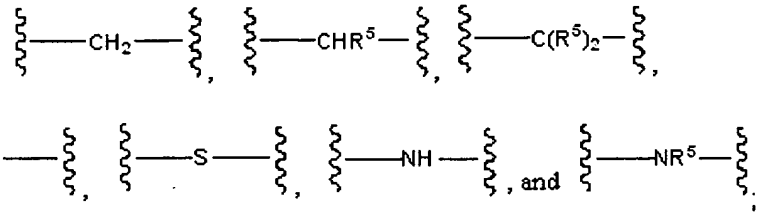
a heteroaromatic group having the structure:



or

wherein J is -O-, -S-, -Se-, -NH-, or -NR^{ALK}-, wherein R^{ALK} is a linear or branched alkyl having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms;

R^3 is selected from the group consisting of:

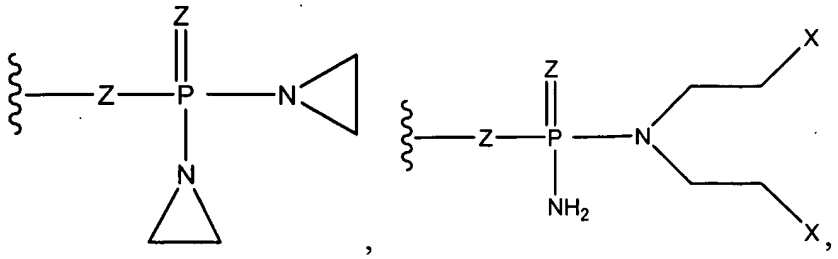


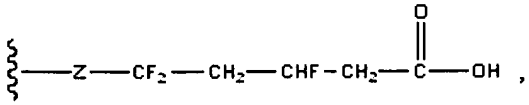
wherein R^5 may be the same or different and is independently a linear or branched alkyl group having from 1 to 10 carbon atoms, or a cycloalkyl group having from 3 to 10 carbon atoms;

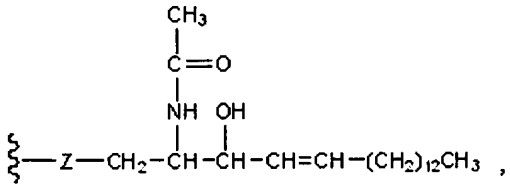
wherein n is an integer from 1 to 10;

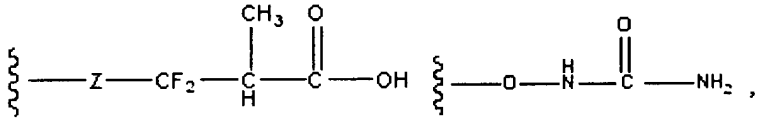
wherein m is 0 or 1;

wherein R^4 is a toxophore selected from the group consisting of:

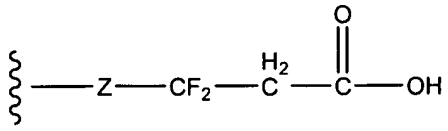








and

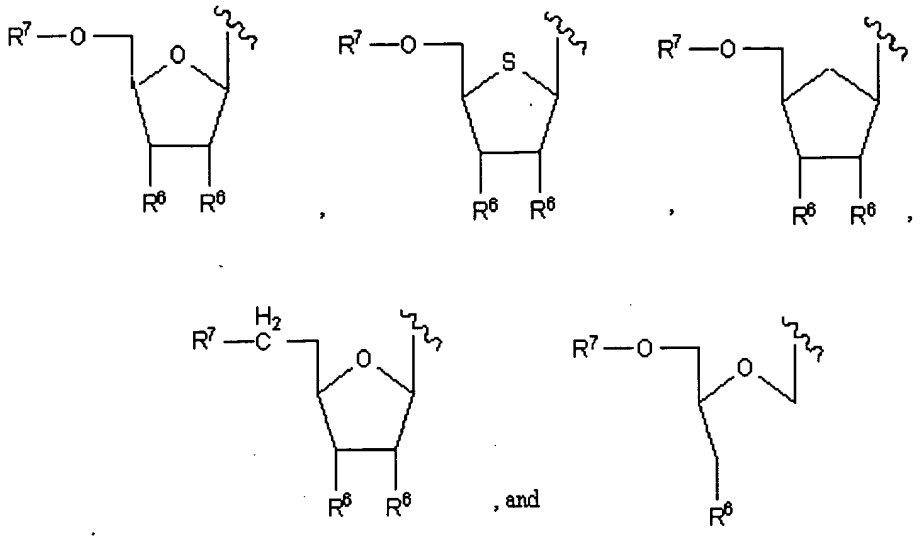


wherein X is -Cl, -Br, -I, or other halogen, with the proviso that when R^7 is -H, and m is zero, then R^4 is not a halogen or when m is zero and n is zero, then R^4 is not a halogen;

wherein Y is independently -H or -F;

wherein Z is independently -O- or -S-;

wherein Q is selected from the group consisting of:

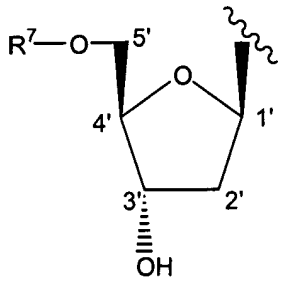


wherein R^6 is independently -H, -OH, $-OC(=O)CH_3$, or $-O-R_9$ wherein R_9 is a hydroxyl protecting group other than acetyl; and,

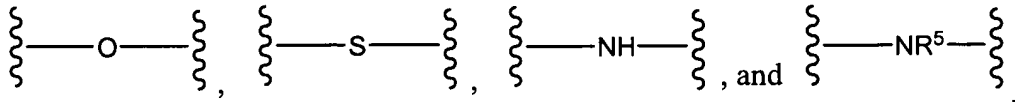
wherein R^7 is hydrogen, a phosphoryl derivative or a phosphoramidatyl derivative of a naturally-occurring amino acid~~;~~

and wherein said compound may be in any enantiomeric, diasteriomeric, ~~or stereoisomeric form, consisting of a D-form, L-form,~~ α-anomeric form, ~~and~~ β-anomeric form or stereoisomeric form, wherein the stereoisomeric form consists of a D-form and an L-form.

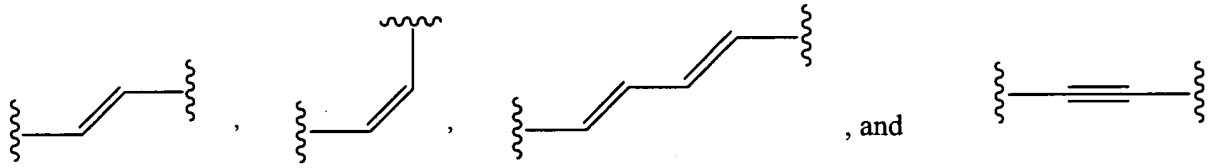
63. (Currently Amended) A compound according to claim 62, wherein Q is:



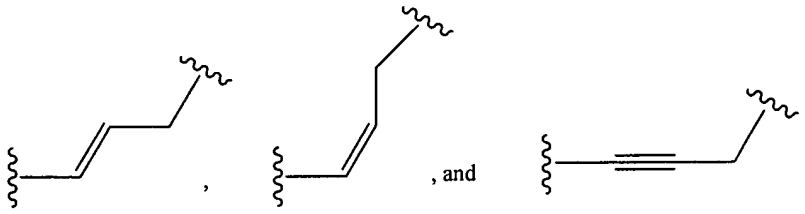
64. (Previously Presented) A compound of claim 62, wherein R^3 is selected from the group consisting of:



65. (Previously Presented) A compound of claim 62, wherein R^2 is selected from the group consisting of:



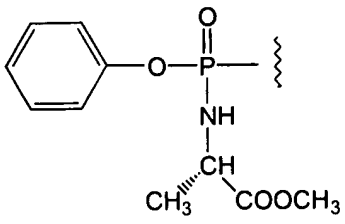
66. (Previously Presented) A compound of claim 62, wherein R^2 and R^3, taken together form a structure selected from the group consisting of:



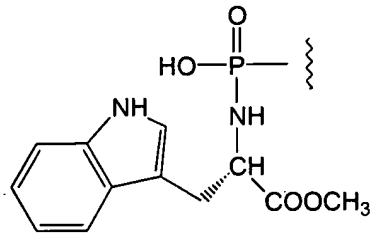
67. (Canceled).

68. (Canceled).

69. (Previously Presented) A compound of claim 62, wherein R^7 is:



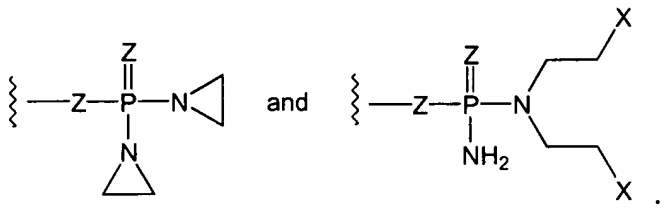
70. (Previously Presented) A compound of claim 62, wherein R^7 is:



71. (Canceled).

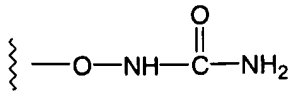
72. (Canceled).

73. (Original) A compound of claim 62, wherein R^4 is selected from the group consisting of:

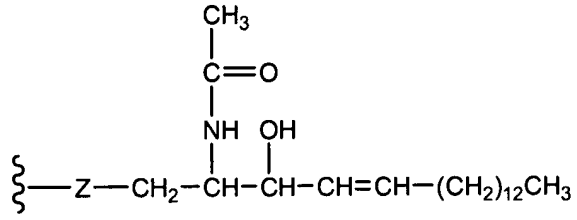


74. (Original) A compound of claim 62, wherein R^4 is selected from the group consisting of:

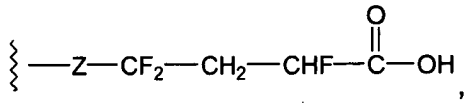
75. (Original) A compound of claim 62, wherein R^4 is:

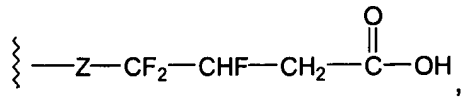


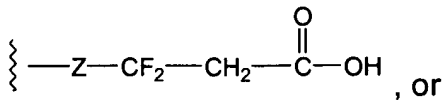
76. (Previously Presented) A compound of claim 62, wherein R^4 is:



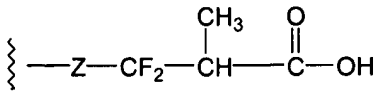
77. (Previously Presented) A compound of claim 62, wherein R^4 is:



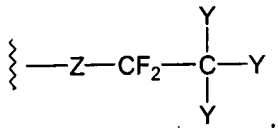




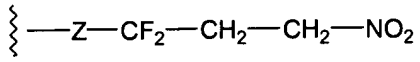
, or



78. (Original) A compound of claim 62, wherein R^4 is:



79. (Original) A compound of claim 62, wherein R^4 is:

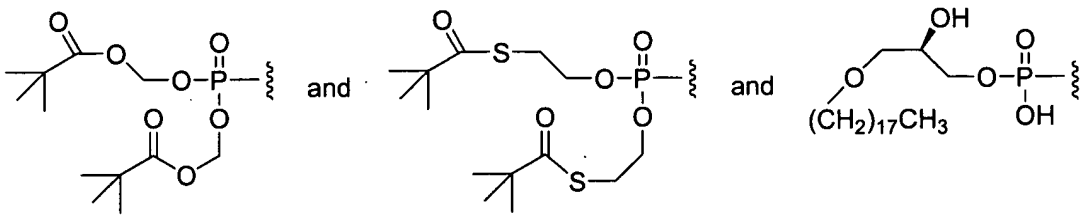


Claims 80-87. (Canceled).

88. (Currently Amended) The method of claims 56 or 57, wherein the hyperproliferative cell is a cancer cell selected from the group consisting of a colorectal cell and a breast cancer cell.

89. (Canceled)

90. (New) The compound of claim 62, wherein R^7 is a phosphoryl derivative selected from the group consisting of:



where R is an aromatic substituent.